

AMENDMENTS TO THE CLAIMS

Please enter the following amendments to the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

Claims 1-24. (Cancelled)

25. (Currently Amended) A transgenic animal rodent model having bone pathology wherein the animal rodent model is a non-human animal rodent that overexpresses regucalcin and shows bone pathology.

26. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 25, wherein the animal rodent expresses one or more changes increases in bone pathology comprising vulnerability of bone tissue, change of bone morphology bone resorption or delay in bone growth.

27. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 25, wherein the animal rodent is selected and determined among non-human animal rodents that everexpresses overexpress regucalcin by a morphological measurement of bone and/or a biochemical measurement of bone component.

28. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 27, wherein the morphological measurement of bone is one or more measurements of any of bone density, bone strength, bone thickness of diaphyseal cortex or length of surrounding of cortex.

29. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 27, wherein the biochemical measurement of bone component is one or more measurements of any of amount of calcium, alkaline phosphatase activity or amount of DNA in bone tissues.

30. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 25, wherein the characteristic of bone pathology is stable through many generations.

31. (Cancelled)

32. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 26, wherein the non-human animal rodent that overexpresses regucalcin is homozygote.

33. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 25, wherein the non-human animal rodent that overexpresses regucalcin is a female non-human animal rodent.

34. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 32, wherein the non-human animal rodent that overexpresses regucalcin is a female non-human animal rodent.

35. (Currently Amended) The transgenic animal rodent model having bone pathology according to claim 25, wherein the non-human animal rodent that overexpresses regucalcin is a rat.

36. (Currently Amended) A screening method of preventive and therapeutic agents for bone diseases wherein a test substance is administered to a transgenic animal rodent model having bone pathology according to claim 25, and a morphological measurement of bone and/or a biochemical measurement of bone component of said transgenic animal rodent model having bone pathology are performed.

37. (Previously Presented) The screening method of preventive and therapeutic agents for bone disease according to claim 36, wherein the morphological measurement of bone is one or more measurements of any of bone density, bone strength, bone thickness of diaphyseal cortex or length of surrounding of cortex.

38. (Previously Presented) The screening method of preventive and therapeutic agents for bone disease according to claim 36, wherein the biochemical measurement of bone component is one or more measurements of any of amount of calcium, alkaline phosphatase activity or amount of DNA in bone tissues.

39. (Previously Presented) The screening method of preventive and therapeutic agents for bone disease according to claim 36, wherein the bone disease is osteoporosis.

40. (Cancelled)

Please add the following new claims:

41. (New) A transgenic rat model having bone pathology wherein the rat model is a rat that overexpresses regucalcin and shows bone pathology.

42. (New) The transgenic rat model having bone pathology according to claim 41, wherein the rat expresses one or more increases in bone pathology comprising vulnerability of bone tissue, bone resorption or delay in bone growth.

43. (New) The transgenic rat model having bone pathology according to claim 41, wherein the rat is selected and determined among rats that overexpress regucalcin by a morphological measurement of bone and/or a biochemical measurement of bone component.

44. (New) The transgenic rat model having bone pathology according to claim 43, wherein the morphological measurement of bone is one or more measurements of any of bone density, bone strength, bone thickness of diaphyseal cortex or length of surrounding of cortex.

45. (New) The transgenic rat model having bone pathology according to claim 43, wherein the biochemical measurement of bone component is one or more measurements of any of amount of calcium, alkaline phosphatase activity or amount of DNA in bone tissues.

46. (New) The transgenic rat model having bone pathology according to claim 41, wherein the characteristic of bone pathology is stable through many generations.

47. (New) The transgenic rat model having bone pathology according to claim 42, wherein the rat that overexpresses regucalcin is homozygote.

48. (New) The transgenic rat model having bone pathology according to claim 41, wherein the rat that overexpresses regucalcin is a female rat.

49. (New) The transgenic rat model having bone pathology according to claim 47, wherein the rat that overexpresses regucalcin is a female rat.

50. (New) A screening method of preventive and therapeutic agents for bone diseases wherein a test substance is administered to a transgenic rat model having bone pathology according to claim 41, and a morphological measurement of bone and/or a biochemical measurement of bone component of said transgenic rat model having bone pathology are performed.

51. (New) The screening method of preventive and therapeutic agents for bone disease according to claim 50, wherein the morphological measurement of bone is one or more measurements of any of bone density, bone strength, bone thickness of diaphyseal cortex or length of surrounding of cortex.

52. (New) The screening method of preventive and therapeutic agents for bone disease according to claim 50, wherein the biochemical measurement of bone component is one or more measurements of any of amount of calcium, alkaline phosphatase activity or amount of DNA in bone tissues.

53. (New) The screening method of preventive and therapeutic agents for bone disease according to claim 50, wherein the bone disease is osteoporosis.